



Livestock and Water Quality Site Visit

Site Visit Information		<input checked="" type="checkbox"/> First Visit	<input type="checkbox"/> Follow-up Visit
Prepared by: Chris Luerkens	Arrival Time: 3:30	Departure Time: 5:30	
Date: 8/20/2014	Current Weather Conditions: Sunny and calm		

Owner/Operator Information	
Name: Renter: Leo Green (Owner: Eric and Cyndy Glieden)	Street: 2515 Brown Road
City: Ferndale WA	Zip Code: 98248
Phone: 360-312-8929	Email:

Site Information	
County: Whatcom	Watershed: California Creek, Drayton Harbor
<p>General site description: General site description: Mr. Leo Green and his son met with Water Quality Specialist Jessica Kirkpatrick and I to discuss his livestock keeping. Mr. Green lives on this property where he keeps 3 cows and 2 calves. Mr. Green rotates his animals onto several areas of pasture including pastures on his neighbor property to the west, owned by Mr. Dan Williams. Towards the end of our site visit, Mr. Williams stopped at and requested an overview of our visit.</p> <p>Animals are confined during the wet season and have access to several portions of pasture during the dry season.</p> <p>Based on the conditions observed during our visit, Mr. Green appears to do a good job managing pastures to ensure a good growth of grass. During our visit we discussed a couple of areas where the presence of manure would likely cause manure contaminated discharges during rain events. These observed conditions are discussed below. Recommended corrective actions are also included to help you reduce risk of polluted discharges from your livestock keeping at this site.</p>	

Site Evaluation

Stream Corridor and Areas Near Surface Water		<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input checked="" type="checkbox"/> Bare, exposed, eroding soils <input type="checkbox"/> Contaminated run-off (active or potential) <input type="checkbox"/> Slumping stream banks and erosion <input type="checkbox"/> Overgrazing of grasses	<input checked="" type="checkbox"/> Absence of woody vegetation <input type="checkbox"/> Manure accumulations <input type="checkbox"/> Animal access to surface water <input type="checkbox"/> Livestock paths and trails along riparian areas		
<p>Comments: There are two areas where animals have access near surface water. These waters drain to California Creek.</p> <p>a) The stream south of the residence has fencing that exclude animals approximately 5 feet on average from the stream. Pasture are established on both sides of the stream. Mr. Green intends to reestablish an improved stream crossing to provide access to pasture south of the stream.</p>			

b) Mr. Williams' property to the west has low areas used as pasture that have standing water during the wet season. These areas of standing water are connected to surface water that eventually drain to California Creek. Livestock are currently not excluded from these areas, however Mr. Green described keeping animals off of pasture during the wet season. If manure is present in or upslope these areas when surface water is present, then the manure may cause contamination to surface water.

Confinement Areas	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input checked="" type="checkbox"/> Distance to surface water (90 ft) <input type="checkbox"/> Presence of mud and manure <input type="checkbox"/> Signs of previous runoff reaching surface water	<input type="checkbox"/> Polluted run-off reaching surface water <input type="checkbox"/> Roof runoff water flows to confinement areas <input checked="" type="checkbox"/> Adjacent land slopes toward surface water	
<p>Comments: Cows are confined in the barn and a cement pad during the winter months. Runoff from the cement pad drains toward the stream to the southwest. Because cows are kept on this cement pad, the runoff will be contaminated by manure. This runoff should be monitored to ensure that manure contaminated runoff does not discharge into the stream.</p> <p>Some of the cement pad drains to the west of Mr. Williams barn into a drainage swale that eventually flows to the stream that runs through Mr. Green's property. If manure is present on this portion of the pad, then runoff from the pad will be polluted.</p>		

Stock Water	<input type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input type="checkbox"/> Distance to surface water (ft) <input type="checkbox"/> Overflow from tanks on to the ground	<input type="checkbox"/> Mud and standing water at tanks <input type="checkbox"/> Animals accesses stream for stock water	
<p>Comments: No concerns noted</p>		

Upland Pasture Areas	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input type="checkbox"/> Animal access to stream corridors <input type="checkbox"/> Distance to surface water (ft)	<input type="checkbox"/> Signs of overgrazing and erosion <input type="checkbox"/> Manure accumulations and bare ground	
<p>Comments: The conditions that we observed show that Mr. Green does a good job of managing the pastures to ensure that they are not overgrazed.</p> <p>Effort should be taken to ensure animals are excluded from areas in and upslope of where standing water is present during the wet season.</p>		

Manure Management	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
Current manure management plan? no Manure collected and stored?	Manure stored on covered, impervious surface? no Applied during growing season?	

Manure storage properly sized?	Manure applied during non-growing season?
Manure storage covered? No	Vegetated buffer when manure is applied?
Manure being collected often?	Manure applied or stored off site?
<p>Comments: Manure from the confinement area and barn is collected and piled north of the cement slab next to the old silo. The manure is incorporated with other materials and composted. Manure and compost are not applied to pastures. Covering the pile would help reduce the risk that runoff from this pile might discharge into surface waters.</p> <p>No significant accumulations of manure were noted on the pastures at time of visit.</p>	

Corrective Actions
<ol style="list-style-type: none"> 1. Collect manure frequently from the cement pad and store it in a dry, covered area with an impervious floor. Site and design this to prevent runoff from this pile from flowing towards surface waters. 2. Monitor and stop any runoff from the concrete pad that is contaminated by with manure from flowing into the stream or any other surface water. During the wet season, cows should not be confined in areas that drain to surface water. 3. To help ensure that runoff during rain events does not pollute surface waters, it is recommended that you install livestock exclusion fencing to keep animals at least 35 ft from surface waters (35ft minimum). This includes areas around the stream and portions of pasture that have seasonal standing water. 4. Any stream crossings should be managed or constructed in a way that protects the stream.

Photos Taken: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sample Taken: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Additional Comments
<p>Comments: I strongly recommend that you contact Chuck Timblin at the Whatcom Conservation District (360) 354-2035. He can help you complete and implement a farm plan that will help you operate your farm.</p>

Ecology Contact Information	
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Inspector Signature: Chris Luerkens

Date: 9/4/14